

UNIFIED NETWORK AND SERVICE MANAGEMENT

MULTI-PLATFORM, MULTI-VENDOR, MULTI-NETWORK

MODERNIZING SATELLITE NETWORK OPERATIONS WITH INTUITION

Intuition modernizes and simplifies satellite network and service management, enabling precise control over multi-network, multi-platform, and multi-vendor infrastructures. Its single interface centralizes observability, promotes comprehensive service lifecycle management, and allows seamless integration with existing systems. By reducing complexity and enhancing operational efficiency, Intuition empowers operators to accelerate their time-to-market while preserving technology investments and operational continuity.

As a catalyst for network modernization, Intuition's unified management capabilities extend to existing ST Engineering iDirect platforms, enabling the integration of advanced functionalities into current satellite network infrastructures. Centralized network configuration and service delivery safeguard operational continuity while providing a pathway toward further modernization. For organizations evaluating migration strategies, Intuition's unified management approach is engineered to facilitate smooth transitions. It ensures compatibility with evolving technologies and provides robust tools to manage network evolution while mitigating operational risk.

A SINGLE PANE OF GLASS FOR COMPLEX ARCHITECTURES

The modern satellite ecosystem demands a unified approach to operations and service delivery. To streamline management across diverse networks and incorporate new service capabilities, Intuition offers a unified interface that centralizes these critical functions.

This single pane of glass combines Intuition Network Management with existing ST Engineering iDirect platforms—including Pulse (on Velocity), iVantage (on Evolution), and CNMS (on Dialog)—reducing complexity and enabling modernization at a flexible pace.

Service management functions are also integrated into this interface, expanding the scope of service delivery and customization. This system connects to OSS/BSS platforms and leverages existing application knowledge with aligned Cascading Style Sheets (CSS) to create a seamless user experience. By consolidating multiple systems into one cohesive view, operators can eliminate the inefficiencies of switching between workflows and gain a holistic perspective of their network infrastructure

CENTRALIZED MANAGEMENT AND OBSERVABILITY

The centralized management and observability layer is designed for maximum efficiency. Intuition's unified technology allows seamless network configuration and management of multiple networks through a single interface. The observability layer consolidates statistics, alarms, events, and logs into one location, providing operators with comprehensive visibility. With access to real-time and historical data presented through clear dashboards and reports, users can monitor operations effortlessly. Additionally, the platform integrates unified user and identity management across all systems, ensuring secure and straightforward access.

KEY BENEFITS OF UNIFIED NETWORK AND SERVICE MANAGEMENT

- **Unified Visibility:** Manage multiple networks through a single interface without replacing existing systems.
- **Efficiency:** Centralize configuration, monitoring, and troubleshooting to improve operational throughput.
- **Scalability:** Launch new products faster and reduce reliance on custom development

ULTIMATE VISIBILITY INTO YOUR NETWORK

ST Engineering iDirect's Intuition Network Management is purpose-built to simplify network management by leveraging advancements in cloud-native architecture, automation, and orchestration. It enables operators to proactively manage their networks with a comprehensive set of capabilities that streamline reliable and secure operations, quickly detect and resolve issues, and provision services efficiently at scale.

Intuition Network Management has a cloud-based microservices architecture which drives productivity, resiliency, and scalability of the overall system. The platform offers robust API capabilities that enable seamless integration into the customer's ecosystem, including OSS/BSS systems and third-party applications. This allows operators to automate workflows, unify operational data, and maintain service continuity across distributed environments. Aligning with industry standards, Intuition Network Management ensures compatibility across diverse operational environments and global communication networks.

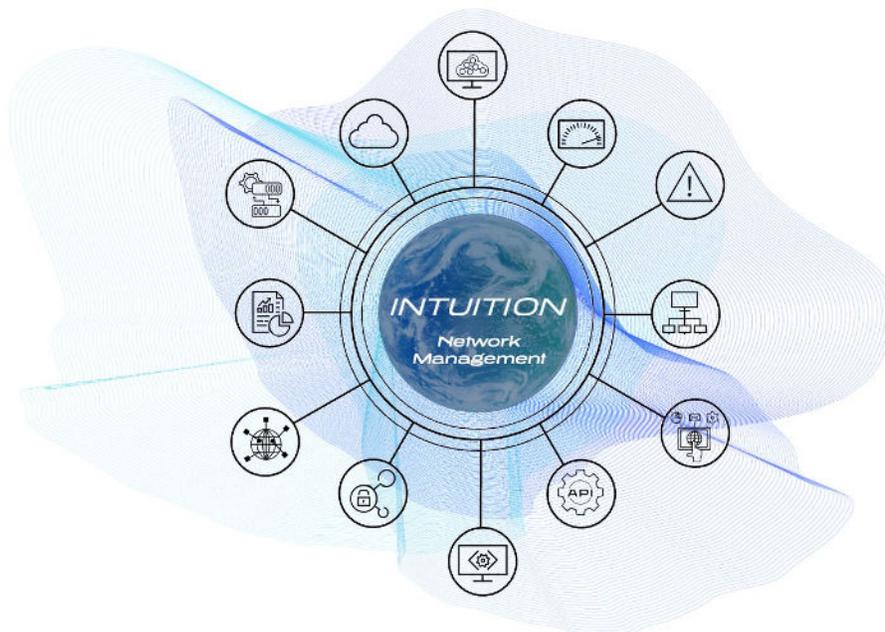
As part of the end-to-end orchestration, Intuition Network Management enables operators with efficient resource allocation, seamless global coverage, and maintaining operational visibility across the network. Its support for both centralized and distributed architectures ensures that operators can respond dynamically to changing conditions, scale services

KEY BENEFITS OF INTUITION NETWORK MANAGEMENT

- Streamlined monitoring and control across all network elements
- Web-scale architecture supporting high availability across diverse environments
- Support for large deployments, including networks with hundreds of thousands of terminals
- Standards-based API-driven architecture
- Security alignment with NIST and OWASP guidelines
- Flexible deployment options, including cloud-native, on-premises, and hybrid configurations

efficiently, and deliver consistent user experiences, regardless of network complexity or geography.

Security is an integral part of Intuition Network Management including NIST and OWASP standards as well as conventional security tools for authentication, authorization, and accounting (AAA) practices, certificate authority management, and role-based



access control (RBAC). Single sign-on (SSO) and multi-factor authorization (MFA) for remote accessibility further protects the Network Management. Users can be confident that their system is secured using industry standard best practices and adheres to regulatory compliance.

Intuition Network Management supports satellite networks ranging from small regional deployments to global operators managing hundreds of thousands of terminals. With a focus on operational efficiency, security, and flexibility, operators will be equipped to scale effectively, respond to evolving demands, and maintain reliable connectivity in dynamic environments.

INTELLIGENT CONFIGURATION & NETWORK OPTIMIZATION

Designed to accelerate service readiness, dynamically allocate resources, and maintain optimal network performance.

Intuition Network Management enables operators to efficiently configure and optimize their networks. It accelerates service readiness by streamlining setup and provisioning processes, while supporting dynamic resource allocation to maintain performance across changing conditions. By automating key workflows and applying policy-driven controls, the platform helps ensure consistent service delivery, reduce operational overhead, and optimize network behavior in real time.

Operators can streamline routine tasks such as device onboarding, software updates, and fault response through workflows enabled by Intuition Network Management. This approach improves operational efficiency and shortens time-to-market in networks of all sizes. It also helps enforce configuration integrity and service-level compliance through automated validation.

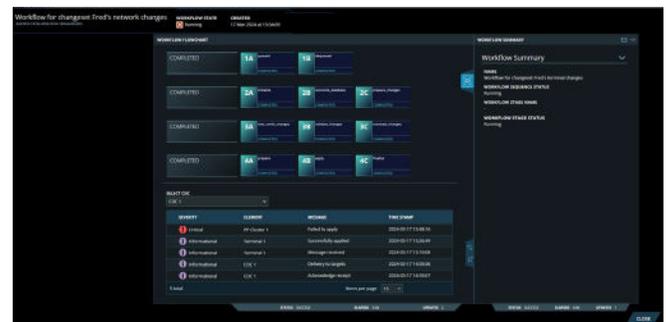
Through intelligent configuration and policy-driven controls, operators can fine-tune how resources are allocated across the network. This includes optimizing bandwidth usage, prioritizing traffic based on service levels, and dynamically adjusting configurations to meet changing user demands. These capabilities help

maximize service coverage and performance while maintaining operational efficiency.

Configuration Management

Intuition Network Management allows users to organize configuration changes into distinct changesets, each containing one or more network updates. These changes can be applied immediately or staged over time, giving teams the flexibility to plan their network rollouts with confidence. This approach enables a peer review before deployment, helping reduce errors and maintain network stability.

CHANGESET



Global Bandwidth Management

Our Global Bandwidth Management (GBWM) helps satellite operators optimize their dynamic space segment to deliver differentiated services with strict SLAs and support multi-tier revenue models. GBWM enables intelligent bandwidth pooling and partitioning across global networks, which may span multiple satellites in different orbits and beams that are dynamically created and resized.



GBWM reduces congestion and contention, optimizing fill rates across diverse customer profiles. This ensures consistent service quality, even as network loads fluctuate and user demand shifts.

REAL-TIME MONITORING & OPERATIONAL CONTROL

Built to deliver continuous visibility, accelerate fault resolution, and streamline network operations.

Actionable Data Insights & Real-time Visibility

Intuition Network Management provides real-time visibility into all active network components, including remote terminals, gateways, forward and return links, and API layers. Operators can monitor performance metrics, traffic patterns, and system health through a unified interface, enabling proactive operations and faster anomaly detection. This level of visibility supports consistent service quality and operational continuity across global and multi-orbit networks.

The Intuition Network Management offers multiple ways to explore and analyze network data, helping operators quickly identify issues and optimize network performance. The geographical view displays network elements on a map, making it easy to spot patterns such as localized outages or service area misconfigurations. Users can apply search and filtering tools to narrow the view to specific regions or asset types. Alarms are visually linked to map elements, enabling faster identification and response to network events. The map also supports overlays for weather and service coverage, helping operators pinpoint areas affected by rain fade, other environmental factors, or coverage gaps. The logical view presents network components in a hierarchical tree structure, with alarm indicators at each node. This allows operators to drill down through branches to isolate faults and trace issues to their source, supporting efficient troubleshooting and resolution.

GEOGRAPHICAL VIEW



CUSTOM DASHBOARD



Customized Reports

Intuition Network Management enables users to build custom dashboards that combine tabular data, charts, and graphs into a unified view. This helps streamline daily operations and improve issue resolution. Dashboards can be shared across user groups and set as landing pages, allowing users to return to their preferred view at login or when navigating to the “home” screen. For example, satellite operators create tailored dashboards for HNOs, VNOs, or tenants. These dashboards can include designated colors and logos for sub-tenants to reinforce brand identity and usability.

The Network Management supports Custom reporting tools, enabling users to transform observability data into actionable insights. These reports help teams identify trends, validate service performance, and communicate results clearly across stakeholders. Service-level agreement (SLA) metrics can be added to a report or dashboard to monitor performance against service expectations. All data can be visualized in multiple formats and exported for use in the broader customer ecosystem.

Multi-tenant Hierarchy

Intuition Network Management supports a multi-tenant hierarchy that enables users to share network resources across VNOs and HNOs while maintaining visibility and control. This structure allows for consistent QoS and SLA tracking across tenants. Fine-grained access controls can be applied at each level, allowing operators to tailor permissions and visibility to match operational needs and organizational boundaries.

SEAMLESS INTEGRATION & ECOSYSTEM INTEROPERABILITY

Designed to simplify integration, accelerate automation, and improve operational efficiency.

Intuition Network Management is designed to integrate with the customer's existing environment. Its standards-based architecture and open APIs enable automation, orchestration, and alignment with OSS/BSS systems. These capabilities help operators streamline service delivery and maintain consistency across their ecosystem.

Standards-Based Interfaces

Intuition Network Management supports ecosystem interoperability by adhering to industry standards and exposing open APIs. Its implementation of GraphQL enables efficient querying of operational data, allowing operators to access specific network insights with minimal overhead. This approach reduces integration complexity, minimizes system load, and accelerates automation workflows. By aligning with established industry standards, Intuition Network Management ensures compatibility across diverse customer environments while maintaining operational efficiency.

API-Driven Automation & OSS/BSS Integration

Intuition Network Management exposes a comprehensive set of open APIs that enable integration with OSS/BSS platforms and other operational systems. This integration allows operators to automate service provisioning, streamline routine tasks, trigger workflows based on real-time network events, and support a wide range of additional functions across their operations.

By aligning operational and business processes, Intuition Network Management reduces manual overhead and improves responsiveness. This enables seamless interoperability across the broader telecommunications ecosystem.

Orchestration Compatibility

Intuition Network Management is designed to work seamlessly with orchestration platforms, enabling dynamic coordination of service and network resources. It supports service chaining and resource

allocation across multi-domain environments, including terrestrial and satellite networks. This interoperability allows operators to automate service delivery, maintain visibility across operational domains, and respond effectively to evolving user demands.

SCALABLE & FLEXIBLE OPERATIONS

Enable growth, adapt to evolving customer demands, and deliver differentiated services across global networks.

Intuition Network Management leverages a microservices architecture to support scalable and flexible operations. Each service can be independently deployed, updated, and scaled. This allows operators to quickly respond to changing network demands and customer requirements. The platform is elastic, capable of scaling from tens to hundreds of thousands of terminals. Intuition Network Management is built on industry-proven technology and uses a time-series optimized database (TSDB) to process and store high-volume telemetry data. These capabilities give operators the insights needed to manage their networks efficiently, regardless of size.

Flexible Deployment Models

The platform supports deployment in cloud-native, on-premises, or hybrid environments, giving operators the freedom to align with their infrastructure strategy. Whether managing regional networks or global operations, Intuition Network Management adapts to varied deployment needs while maintaining consistent functionality and performance. This flexibility helps operators respond to changing conditions and scale services without disruption.

Flexible Operations Across Tenant & Regions

Intuition Network Management enables operators to manage multiple tenants within a unified system, supporting differentiated service delivery across customers, regions, or regulatory boundaries. Each tenant can be configured with custom views, branding, and access controls, allowing operators to tailor experiences while maintaining a unified operational view. This capability supports multi-tier service models and provides operational efficiency across customer segments and regions.

ELEVATING NETWORK MANAGEMENT TO A STRATEGIC ADVANTAGE

ST Engineering iDirect's Intuition Network Management delivers real-time visibility, automated workflows, and operational flexibility to simplify satellite network operations. Its cloud-native architecture, open interfaces, and elastic design enable scalability, streamlined service delivery, and seamless integration across diverse environments. From real-time monitoring to multi-tenant management, Intuition Network Management supports differentiated services, dynamic resource allocation, and consistent performance across regional or global operations. Intuition Network Management is built on proven technologies and a scalable design. This foundation enables operators to meet evolving demands while maintaining visibility, efficiency, and service quality.

Intuition Network Management is a critical asset for operators managing the increasingly complex satellite networks today with:

Real-time monitoring and operational control

- Automates workflows for efficiency
- Optimizes networks with dynamic resources
- Ensures service-level compliance consistently
- Accelerates readiness and reduces overhead

Seamless integration and ecosystem interoperability

- Provides real-time network visibility
- Expedites issue detection and resolution
- Customizes dashboards for actionable insights
- Enables multi-tenant resource sharing

Scalable and flexible operations

- Simplifies integration with existing systems
- Automates tasks through open APIs
- Ensures ecosystem-wide interoperability
- Supports dynamic resource orchestration

Intelligent configuration and network optimization

- Supports scalable, flexible operations
- Adapts to evolving customer requirements
- Provides deployment model flexibility
- Manages tenants across global networks

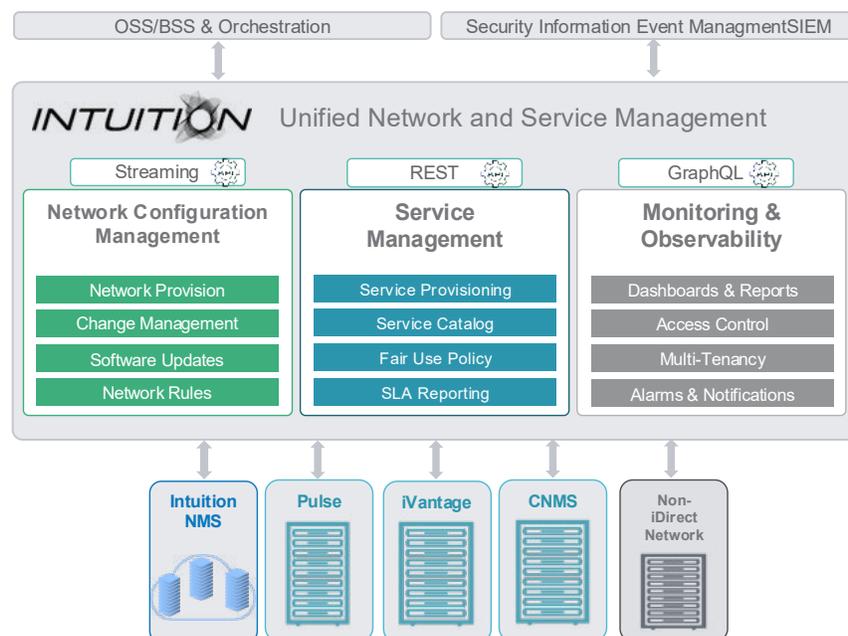
Intuition Network Management provides flexibility for operators to get the peak performance out of their networks with the agility to quickly adapt to changing conditions resulting in high network availability, reliable SLA fulfillment, and exceptional customer satisfaction.



Contact your ST Engineering iDirect Account Team to schedule an Intuition Network Management demo!

ADVANCED SERVICE MANAGEMENT MODULE

The service management module, powered by G&S SatConnect, introduces a centralized function for the provisioning, configuration, activation, and monitoring of satellite end-customer services. This module enables operators to manage bandwidth, Quality of Service (QoS), and service profiles with precision. It oversees the entire lifecycle of the end-customer service, from subscriptions and upgrades to usage tracking and Service-Level Agreement (SLA) enforcement. By correlating service behavior with network performance through advanced monitoring, alarms, maps, and dashboards, the system standardizes the user experience for managing satellite services across heterogeneous networks.



STRATEGIC MODERNIZATION AND INVESTMENT PROTECTION

Our solution allows customers to modernize their networks at their own pace, supporting phased upgrades by enabling existing networks to operate alongside Intuition. This approach ensures new applications can be introduced incrementally without disrupting current systems, fostering confidence in adopting next-generation technology. A unified network and service management strategy preserves existing infrastructure and contractual investments while seamlessly adding new capabilities.

BUSINESS AGILITY AND MARKET GROWTH

In an industry where speed and agility define success, this solution offers operational simplicity. Operators can run a single global business and service model, even while underlying networks evolve at different speeds. The solution correlates service and network data, empowering teams to identify issues and make critical decisions more quickly. This approach simplifies the onboarding of new networks and technologies, allowing organizations to adapt rapidly to changing market conditions.

With Intuition, operators can enhance their offerings and differentiate themselves in the competitive market by delivering advanced satellite services efficiently, effectively, and reliably. By simplifying network operations, reducing costs, and providing a flexible platform for future growth

FLEXIBLE BUSINESS MODELS

The platform supports diverse business models tailored to specific customer needs, industry verticals, or geographic regions. Operators can enable SLA-driven and consumption-based offerings, providing flexible packaging and service models that align with diverse market demands. This flexibility ensures that operators can capture new revenue streams and respond effectively to specific customer requirements.

IMPROVED TIME-TO-MARKET

Accelerating service delivery is critical for growth. Our solution improves time-to-market by allowing operators to launch new products and services faster through reusable service templates. This reduces dependency on manual processes and custom integrations, enabling rapid experimentation and adaptation of service offerings.



**Ready to unify your network operations and service delivery?
Contact our team to learn how our Unified Network and Service
Management solution can transform your business.**